

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1, 2, and 4-6 are pending in this application. Claims 1, 4, and 6 are amended by the present amendment.

Claim amendments find support in the specification as originally filed, at least at page 7, lines 15-17, and page 9, lines 16-20. Thus, no new matter is added.

In the outstanding Office Action, Claims 1, 2, and 6 were rejected under 35 U.S.C. § 103(a) as unpatentable over Harel et al. (U.S. Patent 6,128,472; herein “Harel”) and Gosselin (WO 01/65885); and Claims 4 and 5 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kall et al. (U.S. Patent 7,149,195; herein “Kall”) in view of Harel.

Applicants respectfully traverse the rejection of Claims 1, 2, and 6 under 35 U.S.C. § 103(a) as unpatentable over Harel and Gosselin, with respect to amended independent Claims 1 and 6.

Amended Claim 1 is directed to a base station supporting multicast communication. The base station includes a response signal relay that is configured to receive a predetermined number of response signals to a common control signal from one or more mobile stations in a multicast group. The predetermined number of response signals includes a maximum of one response signal from each of the one or more mobile stations. The response signal relay is also configured to receive a subsequent response signal to the common control signal from a second mobile station in the multicast group. The second mobile station is not included in the one or more mobile stations, and the subsequent response signal is received after the predetermined number of response signals. Further, the response signal relay is configured to transfer only the predetermined number of response signals received from the one or more mobile stations to a controller without waiting to receive the subsequent response signal. The

base station is also configured to retain the subsequent response signal to the common control signal. Independent Claim 6 includes similar features, with a response signal relay configured to process only the predetermined number of response signals received from the one or more mobile stations to a controller without waiting to receive the subsequent response signal, and unprocess the subsequent response signal.

In a non-limiting embodiment, Applicants' Figure 7 shows an example of a communication system including mobile stations 11, 12, 21, 41, 42, and 43 and a base station 10. As shown in this example, the base station 10 may send a service notice signal 1002 (e.g., common control signal) to the mobile stations, and one or more of the mobile stations may transmit a response signal 1004. The base station 10 in this example is further configured to transfer a predetermined number of the total number of messages received from the mobile stations and to retain a subsequent message received from a mobile station. For example, if mobile station 11 sends one response signal 1004 to the base station 10 and mobile station 12 sends one response signal 1004 the base station 10, and if the predetermined number is two (2), the base station 10 may transfer only the two messages (e.g., the predetermined number of response signals received from the one or more mobile stations), and the base station 10 will not wait to receive a subsequent response signal (e.g., a response signal 1004 from another mobile station, such as mobile station 21).

Applicants respectfully submit that Harel and Gosselin fail to teach or suggest each of the features of independent Claims 1 and 6.

Harel describes a base station network 300 of a two-way pager system, having a message management system 310 coupled between a base station controller 112 and receivers 108 and 110 that receive plural messages from plural subscriber units (SU).¹ According to Harel, a message manager 320, which is included in the message management system 310,

¹ Harel at column 3, lines 59-65, column 4, lines 26-32, and Fig. 3.

“may be preprogrammed with a stored list of multicast group common identifiers” and “will direct exactly one selected message from the multicast message group to the central base station controller 112.”² Further, Harel indicates that “[s]ubscribers are selectively grouped into a multicast group for *simultaneously* transmitting messages to the message management system, the *simultaneously* transmitted messages making up a multicast message group. The message management system receives the multicast message group, directs exactly one selected message of the multicast message group to the central base station controller, and diverts the remaining message.”³

In other words, Applicants respectfully point out that according to Harel a message management system (e.g., base station) receives plural messages that are simultaneously transmitted from plural subscriber units and sends one selected message from the simultaneously transmitted plural messages to the central controller *after* receiving all the simultaneously transmitted messages. Therefore, Applicants respectfully submit that Harel fails to teach or suggest a base station that transfers only a predetermined number of response signals “without waiting to receive the subsequent response signal,” as recited in independent Claims 1 and 6.

Accordingly, Applicants respectfully submit that independent Claims 1 and 6 patentably define over Harel. Further, Applicants have reviewed Gosselin and respectfully submit that Gosselin also fails to teach or suggest the claimed features lacking in the disclosure of Harel.

Therefore, it is respectfully submitted that independent Claims 1 and 6, and claims depending therefrom, patentably define over Harel and Gosselin.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 2 and 6 under 35 U.S.C. § 103(a) be withdrawn.

² Harel at column 4, lines 35-47.

³ Harel at Abstract (emphasis added).

Further, Applicants respectfully traverse the rejection of Claims 4 and 5 under 35 U.S.C. § 103(a) as unpatentable over Kall and Harel, with respect to amended Claim 4.

Amended Claim 4 is directed to a radio network controller supporting multicast communication. The radio network controller is configured to receive a predetermined number of response signals to a common control signal from one or more mobile stations in a multicast group. The predetermined number of response signals includes a maximum of one response signal from each of the one or more mobile stations. The radio network controller is also configured to receive a subsequent response signal to the common control signal from a second mobile station in the multicast group. The second mobile station is not included in the one or more mobile stations, and the subsequent response signal is received after the predetermined number of response signals. Further, the radio network controller is also configured to perform a predetermined processing on only the predetermined number of response signals without performing a predetermined processing on the subsequent response signal.

Kall describes a method for multicasting data in which an identifier identifies when a selected number of mobile user endpoints are to receive the same multicast data, and in that case, the multicast data is broadcast to the mobile user endpoints using a common channel.⁴ For example, according to Kall, a RNC 36 RANcasts (i.e., multicasts) multicast data when the number of mobile stations requesting transmission of multicast data is increased more than the selected level.⁵ In other words, Applicants respectfully submit that according to Kall, a radio network controller unicasts multicast data when the number of mobile stations requesting transmission of the multicast data is reduced beneath a selected level. Further, as noted in the Office Action, Kall fails to teach performing processing on only a predetermined

⁴ Kall at Abstract.

⁵ Kall at column 6, lines 60-66.

number of response signals.⁶ Accordingly, Applicants respectfully submit that Kall fails to teach or suggest a radio network controller that is configured to “perform a predetermined processing on only the predetermined number of response signals without performing a predetermined processing on the subsequent response signal,” as required by amended Claim 4.

In addition, Applicants respectfully submit that Harel describes that the message management system 310 directs inbound messages to a central base station controller 112 (e.g., radio network controller), and Harel fails to describe or otherwise suggest that the radio network controller is configured to “perform a predetermined processing on only the predetermined number of response signals without performing a predetermined processing on the subsequent response signal,” as required by amended Claim 4.

Thus, it is respectfully submitted that independent Claim 4 and claims depending therefrom also patentably define over Kall and Harel, whether taken individually or in combination.

Therefore, Applicants respectfully submit that independent Claims 1, 4, 6, and 7, and claims depending therefrom, are allowable.

⁶ Office Action at page 4, lines 7-8.

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present application, including Claims 1, 2, and 4-6, is patentably distinguished over the prior art, and therefore in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)

Zachary S. Stern
Registration No. 54,719

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